1	2	3	4	5	6
30.	Chandigarh	11	2	1	1
31.	D & N Haveli	49	23	8	15
32.	Daman & Diu	11	4	1	3
33.	Delhi	148	29	29	0
34.	Lakshadweep	3	3	1	2
35.	Pondicherry	48	24	21	3
	TOTAL:	328726	141345	55876	85469

Systems to help improving food production

536. SHRIMATI N.P. DURGA: Will the Minister of AGRICULTURE be pleased to state:

(a) how the Geographic Information System, Remote Sensing, Global Position System, Simulation Modeling are helping in increasing the food production in the country;

(b) whether it is a fact that BARC has developed 29 improved varieties for commercial cultivation;

(c) if so, the details thereof; and

(d) how his Ministry is planning to go ahead in application of biosensors, biotechnology, nano-technology, etc., for improving the production of foodgrains in the country?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTI LAL BHURIA): (a) These technologies having applications across diverse fields of resource characterization, land use planning, precision farming, crop forecasting, flood & drought monitoring etc. have helped increase agricultural production in the country.

(b) and (c) Yes, Sir. Using radiation induced mutation and cross-breeding, BARC has developed 29 improved varieties and released for commercial cultivation. These comprise 16 in oilseeds (12 groundnut, 2 soyabean and 2 mustard); 11 in pulses (4 blackgram, 5 greengram and 2 pigeonpea); and 1 each of rice and jute.

(d) The ICAR is developing improved cultivars/varieties with high yield potential, tolerance to biotic and abiotic stresses and better quality traits etc. through bio-technological interventions. There is proposal for establishing Institutes on Agricultural Biotechnology, Biotic and Abiotic Stress Management during Xlth Plan.

The nanotechnology has potential in enhancing resource use efficiency in terms of soil-water-nutrient-pesticide etc. through development of suitable nano-products and biosensors. Research initiatives to this direction are being made to harness the potential.

Suicides by farmers

537. SHRI N.R. GOVINDARAJAR: Will the Minister of AGRICULTURE be pleased to state:

(a) whether the cases of suicide by farmers are increasing rapidly in various parts of the country despite the rehabilitation packages;

(b) if so, the number of such cases reported during the last three years and this year, so far, State-wise;

(c) whether Government has identified the reasons for the same; and

(d) if so, the details thereof and the corrective steps taken by Government to remedy the situation?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTI LAL BHURIA): (a) and (b) The number of farmers suicide during the last three years as reported by the State Governments is enclosed as Statement. *{See* below)

(c) and (d) As reported by the State Governments, the causes for suicide by farmers are broadly crop failure, indebtedness, drought, social and economic insecurity. The Government of India has approved a Rehablitation Package in September, 2006, amounting to Rs. 16978.69 crore, for 31 suicide prone districts spread over the states of Andhra Pradesh, Maharashtra, Karnataka and Kerala. The Package consisting of short term and long term measures is being implemented over a period of three years. It aims at establishing a sustainable and viable farming and livelihood support system through debt relief to farmers, improved supply of institutional credit, crop centric approach to agriculture, assured irrigation facilities, watershed management, better extension and farming support services, improved marketing facilities and subsidiary income opportunities. Government have also taken steps for adequate availability of institutional credit for the fanners at a reasonable rate of interest and provision of Kisan Credit Cards.

Statement

Number of cases of suicide by farmers, as reported by the State Governments

Sl. No.	Name of State	Period	No. (Based on the figures reported by State Govts.)*
1.	Andhra Pradesh	2005 2006 2007 (upto 30.06.2007)	632 448 114
2.	Karnataka	2005-06 2006-07 2007-08 (upto 10.07.2007)	163 320 73
3.	Maharashtra	2005 2006 2007 (upto April 2007)	595 ' 2355 607
4.	Kerala	2001 to 2006 2007 (upto 31.01.2007)	**841** 13
5.	Tamil Nadu	2000-2007 (upto March 2007)	26
6.	Punjab	2005 2006	6 3
7.	Gujarat	2005 2006 (upto 30.05.2006)	7 1

*The States/UTs of Orissa, Himachal Pradesh, Nagaland, Goa, Haryana, Delhi, Sikkim, Jammu & Kashmir, Chandigarh, Dadra and Nagar Haveli, Lakshadweep, Pondicherry and Andaman and Nicobar have reported the figure relating to farmers' suicides as "NIL".